

BEACH MICE

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of SEBM, AIBM, CBM, PKBM, and SABM in the proposed Action Area.

Beach Mice

1. The Corps, permittee, and/or local sponsor must implement beach mouse protection, monitoring, and habitat protection, maintenance, and restoration procedures to minimize impacts to beach mice from the construction and maintenance activities. The following are nourishment projects that have occurred in beach mouse occupied habitat: Escambia County beach nourishment, NAS Pensacola Pass channel maintenance, Walton County beach nourishment, St. Joseph Peninsula beach nourishment, New Smyrna beach nourishment, and Anastasia State Park beach nourishment.
2. Construction equipment and materials must be placed in a manner that will minimize impacts to beach mice by avoiding the vegetated dune to the maximum extent practicable.
3. Existing vegetated habitat at each of the beach access points must be protected to the maximum extent practicable and must be delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor.
4. Expanded or newly created beach access created for the project work must be approved by the Service.
5. Expanded or newly created beach access must be restored to dune habitat within 3 months following project completion. The habitat restoration must consist of restoring the dune topography and planting with appropriate native dune vegetation (i.e., native to coastal dunes in the respective county and grown from plant stock from that region of Florida).
6. The Service must be notified of any incidental take of beach mice.
7. The Corps, permittee, and/or local sponsor must install and maintain predator proof trash receptacles at all beach access points used to minimize the potential for attracting predators to beach mice.
8. The Corps, permittee, and/or local sponsor must ensure that their staff and or their contractors conducting the construction and maintenance operations fully understand and correctly implement the actions to protect SEBM, AIBM, CBM, PKBM, and SABM.

9. The Corps, permittee, and/or local sponsor must ensure that the terms and conditions are accomplished and completed as detailed in this incidental take statement including completion of reporting requirements.

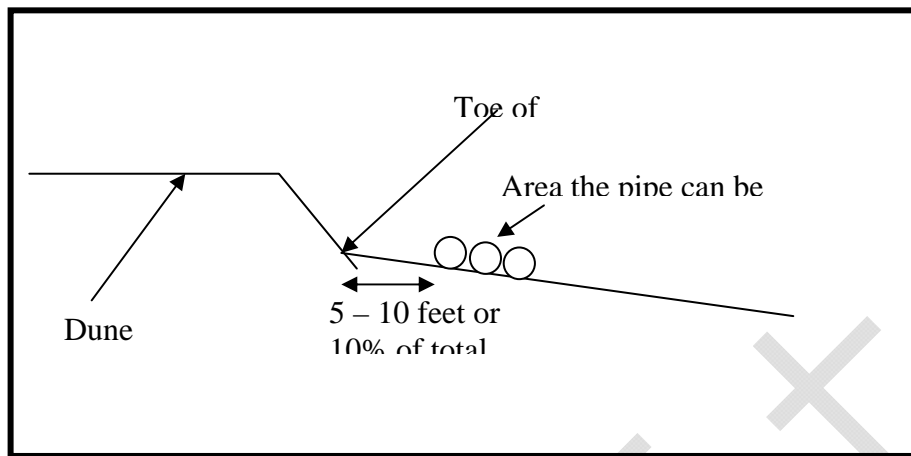
TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1. Beach mouse habitat must be avoided when selecting sites for equipment, pipes, vehicle storage and staging to the maximum extent practicable.
2. The exclusion area for equipment must be between 5 to 10 feet seaward of the existing dune toe or 10% of the beach width seaward of the dune toe in areas of occupied beach mouse habitat (see diagram below). The toe of the dune is where the slope breaks at the seaward foot of the dune.
3. Existing beach access points must be used for vehicle and equipment beach access to the maximum extent practicable. These accesses must be delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor. The accesses must be fully restored to pre-project work configuration following project completion. Equipment and material staging/storage areas for the project must be located outside of vegetated dune habitat and public lands. No storage of equipment or materials must occur on the beach or dunes at any time of year. Parking areas for construction crews must be located as close as possible to the work sites, but outside of vegetated dunes to minimize impacts to existing habitat and the need to transport workers along the beachfront. The number of beach access sites for vehicles and equipment must be minimal, clearly marked, and located in areas that are devoid of vegetation. All access and staging areas must be restored upon completion of emergency berm construction and repair;
4. The creation of new or expansion of existing beach accesses within beach mouse habitat, consisting of a vegetated dune, for vehicles and equipment is authorized no more than every 4 miles. The distribution of access areas will result in the least number of access areas within beach mouse habitat as practicable and delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor. The access points must be as follows:
 - i. No more than 25 feet wide for vehicles
 - ii. No more than 50 feet wide for equipment.
5. New or expanded beach accesses that impact vegetated dunes must be restored to dune habitat within 3 months following project completion. The habitat restoration must consist of restoring the dune topography and planting with appropriate native

dune vegetation (i.e., native to coastal dunes in the respective county and grown from plant stock from that region of Florida). Seedlings must be at least 1 inch by 1 inch with a 2.5-inch pot. Planting must be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. Vegetation must be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. No sand stabilizer material (coconut matting or other material) must be used in the dune restoration. The plants may be watered without installing an irrigation system. The restoration must be considered successful if 80 percent of the total planted vegetation is documented to survive six months following planting of vegetation. If the habitat restoration is unsuccessful, the area must be replanted following coordination with the Service.

6. The Corps, permittee, and/or local sponsor must be immediately notified by the project contractors upon locating an injured or dead beach mouse that had been harmed or destroyed. The Corps, permittee, and/or local sponsor must be responsible for notifying FWC Wildlife Alert at 1-888-404-FWCC (3922) and the U.S. Fish and Wildlife Service Office: for the Anastasia beach mouse and the Southeastern beach mouse (from Brevard County north) call (904) 232-2580; for the Southeastern beach mouse (south of Brevard County) call (772) 562-3909; and for the Choctawhatchee, St. Andrew, and Perdido Key beach mice call (850) 769-0552. Care should be taken in handling injured beach mice to ensure effective treatment or disposition and in handling dead specimens to preserve biological materials in the best possible state for later analysis.
7. The Corps, permittee, and/or local sponsor must ensure that the contractors conducting the work provide predator proof trash receptacles for the construction workers. The trash receptacles must be removed daily. All contractors and their employees must be briefed on the importance of not littering and keeping the project area trash and debris free.
8. The Corps, permittee, and/or local sponsor must contact the Service if feral cats are noticed within the work area. The Service will meet with the contractor, Corps, permittee, and/or local sponsor to discuss the cause of the free ranging domestic or feral cats and a solution for free ranging domestic or feral cat control as needed or appropriate on beachfront lands within the project area.
9. A report describing the projects that were conducted during the year and actions taken to implement the terms and conditions of this incidental take statement must be submitted to each of the U.S. Fish and Wildlife Service Field Offices in Florida (Jacksonville, South Florida, and Panama City, by March 1 of the following year. This report must also include the project location (include DEP R-Monuments), project description, dates of actual construction activities, acreage of new or widened access areas affected in beach mouse habitat, vegetation completed for new or widened access areas, success rate of vegetation.



CONSERVATION RECOMMENDATIONS

Section 7(a) (1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. All created dunes should be planted with at least three species of appropriate native salt-resistant dune vegetation. Examples along the east coast include: *Panicum amarum* (panic grass), *Uniola paniculata* (sea oats must be grown from local genetic stock), *Ipomoea stolonifera* (beach morning glory) or *Ipomoea pes-caprae* (Railroad vine). Examples along the pan handle include: *Panicum amarum* (panic grass) or *Schizachyrium scoparium* (bluestem), *Uniola paniculata* (sea oats must be grown from local genetic stock), *Ipomoea imperati* (beach morning glory) or *Ipomoea pes-caprae* (Railroad vine).
2. An educational sign should be placed where appropriate at beach access points explaining the importance of the area to coastal species including beach mice. An example of the information to be included in the sign is attached in Appendix ?.
3. Local sponsors and permittees should implement predator control programs that target free ranging domestic and feral cats.
4. Local sponsors and permittees should install dune walkovers at beach access points to protect the restored beach and dunes.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

